

**§ 98.277**

**40 CFR Ch. I (7–1–10 Edition)**

(incorporated by reference, *see* § 98.7) or an online measurement system).

(d) The high heat value (HHV) of the spent liquor solids used in Equation AA-1 of this subpart (mmBtu per kilogram).

(e) The default emission factor for CO<sub>2</sub>, CH<sub>4</sub>, or N<sub>2</sub>O, used in Equation AA-1 of this subpart (kg CO<sub>2</sub>, CH<sub>4</sub>, or N<sub>2</sub>O per mmBtu).

(f) The carbon content (CC) of the spent liquor solids, used in Equation AA-2 of this subpart (percent by weight, expressed as a decimal fraction, e.g., 95% = 0.95).

(g) Annual quantities of fossil fuels by type used in pulp mill lime kilns in short tons for solid fuels, gallons for liquid fuels and scf for gaseous fuels.

(h) Make-up quantity of CaCO<sub>3</sub> used for the reporting year (metric tons per year) used in Equation AA-3 of this subpart.

(i) Make-up quantity of Na<sub>2</sub>CO<sub>3</sub> used for the reporting year (metric tons per year) used in Equation AA-3 of this subpart.

(j) Annual steam purchases (pounds of steam per year).

(k) Annual production of pulp and/or paper products produced (metric tons).

records in paragraphs (a) through (f) of this section.

(a) GHG emission estimates (including separate estimates of biogenic CO<sub>2</sub>) for each emissions source listed under § 98.270(b).

(b) Annual analyses of spent pulping liquor HHV for each chemical recovery furnace at kraft and soda facilities.

(c) Annual analyses of spent pulping liquor carbon content for each chemical recovery combustion unit at a sulfite or semichemical pulp facility.

(d) Annual quantity of spent liquor solids combusted in each chemical recovery furnace and chemical recovery combustion unit, and the basis for determining the annual quantity of the spent liquor solids combusted (whether based on T650 om-05 Solids Content of Black Liquor, TAPPI (incorporated by reference, *see* § 98.7) or an online measurement system). If an online measurement system is used, you must retain records of the calculations used to determine the annual quantity of spent liquor solids combusted from the continuous measurements.

(e) Annual steam purchases.

(f) Annual quantities of makeup chemicals used.

**§ 98.277 Records that must be retained.**

In addition to the information required by § 98.3(g), you must retain the

**§ 98.278 Definitions.**

All terms used in this subpart have the same meaning given in the Clean Air Act and subpart A of this part.

TABLE AA-1 TO SUBPART AA OF PART 98—KRAFT PULPING LIQUOR EMISSIONS FACTORS FOR BIOMASS-BASED CO<sub>2</sub>, CH<sub>4</sub>, AND N<sub>2</sub>O

Wood furnish	Biomass-based emissions factors (kg/mmBtu HHV)		
	CO <sub>2</sub> <sup>a</sup>	CH <sub>4</sub>	N <sub>2</sub> O
North American Softwood .....	94.4	0.030	0.005
North American Hardwood .....	93.7		
Bagasse .....	95.5		
Bamboo .....	93.7		
Straw .....	95.1		

<sup>a</sup> Includes emissions from both the recovery furnace and pulp mill lime kiln.

TABLE AA-2 TO SUBPART AA OF PART 98—KRAFT LIME KILN AND CALCINER EMISSIONS FACTORS FOR FOSSIL FUEL-BASED CO<sub>2</sub>, CH<sub>4</sub>, AND N<sub>2</sub>O

Fuel	Fossil fuel-based emissions factors (kg/mmBtu HHV)					
	Kraft lime kilns			Kraft calciners		
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
Residual Oil .....	76.7	0.0027	0	76.7	0.0027	0.0003
Distillate Oil .....	73.5			73.5		0.0004